

Title (en)
TWO-POLE OVERCURRENT PROTECTION

Publication
EP 0118785 B1 19870527 (DE)

Application
EP 84101454 A 19840213

Priority
SE 8300853 A 19830216

Abstract (en)
[origin: US4546401A] A two-pole overcurrent protection device arranged to interrupt the current flowing in a conductor if the current exceeds a predetermined level employs a semiconductor wafer on which is formed a turn-off thyristor and a MOS transistor. The control electrode of the transistor is supplied with a voltage dependent on the on-state voltage drop of the thyristor and, therefore, on its current, and at a certain thyristor current the transistor short-circuits one of the emitter junctions of the thyristor to extinguish the thyristor. For firing the thyristor, one of the base layers thereof is supplied with a gate trigger current via a JFET transistor portion formed in the semiconductor wafer with a horizontal channel region. This transistor portion is designed so that its saturation current exceeds, with a suitable margin, the current necessary for firing the thyristor. When a high voltage exists across the thyristor, the transistor portion will limit the current flowing to the base layer to a value which is equal to the saturation current of the transistor portion.

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IPC 8 full level
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CPC (source: EP US)
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Cited by
US4779125A; FR2584237A1; EP0433825A1; WO8505224A1

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